



Jess Fuller-Smith, School of Geography & Environmental Studies, UTAS *To Burn or Not to Burn – the Effects of Bushfire on Grasslands*

Like many children, I always wanted to know “why” and “how”. Why is there snow on the mountain and waves at the beach? How do rainbows form and birds fly? Of course, the answers to my questions came from science, so this is where my interest in science began.

I am completing a science degree at the University of Tasmania, studying Geography and Plant Science. When I left school, I wanted to learn more about the natural environment and how to look after it, and I thought a Science degree at UTAS would be a great place to learn more.

Earlier this year I completed research on the rare and endangered highland *Poa* grasslands of Tasmania. These grasslands were predominantly created by Aboriginal burning, and since this burning ceased, teatree shrubs (*Leptospermum lanigerum*) have been invading the grasslands. My research aimed to determine whether fire could be used to stop or slow further shrub invasion of the grasslands. I spent time in the field studying the shrubs and the grasslands directly. I also compared aerial photos of the grasslands from the 1950s to the present with information on when fires occurred in the area.

I found that, because teatree releases seed after fire, if the area is burnt after shrubs are mature and producing seeds, burning would increase invasion by shrubs. But if the area is burnt more regularly, before the shrubs have time to mature and produce seed, then burning could be used to stop or slow shrub invasion into the grassland.

In the future, I want to learn more about the natural environment, I want to apply what I learn to help manage the environment and most of all, I want to teach people about the environment. I think environmental science is fascinating, and I want to pass on this passion to others so that they can gain a greater appreciation of the natural world around them, and be encouraged to do their bit for the environment.

I love that through science I can now go outside and understand a bit more about the world around me.

For example, I can go bushwalking and understand why leaves are green, why there are different plants growing at different altitudes, how animals keep warm in the snow...

